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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,575	02/26/2002	Robert Karl Goodman	67,008-037/S-5194	8919
26096	7590	03/02/2006	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			RODRIGUEZ, PAUL L	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/085,575	Applicant(s) GOODMAN, ROBERT KARL	
	Examiner Paul L. Rodriguez	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12/29/05.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 6-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-16 is/are allowed.
- 6) ☐ Claim(s) 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/29/05 has been entered.

2. The amendment filed 12/29/05 has been received and considered. Claims 6-23 are presented for examination.

### *Election/Restrictions*

3. Based upon the amended claim language of claims 17-21, these claims are now considered to fall within the elected group I and have been considered by the Examiner.

### *Information Disclosure Statement*

4. The information disclosure statement filed 2/16/05 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because while the cover letter corrected the application number, **the PTO-1449 submitted lists the wrong application number** so it is unclear if the PTO-1449 submitted is the correct one. Also, reference number 3 listed application serial number 10/803,949 as relating to U.S. Pat 6,772,074 however the associated serial number for this patent is 10/083,949. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the

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submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 17-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 line 7 refers to “K<sub>th</sub> component”, the meaning of this term is indefinite and the disclosure provides no clear definition of the term. The lack of a clear definition renders the term indefinite.

8. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 refers to “U<sub>i,k</sub>”, “(Z<sub>i-1</sub>)<sup>new</sup>” and “T”, which are never defined in the claim. The lack of a clear definition renders the term indefinite.

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9. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. While A is defined as a constant, " $W_{u,k,k}$ " never defined in the claim. The lack of a clear definition renders the term indefinite.

10. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim again contains numerous terms and variables not defined. This lack of a clear definition renders the terms indefinite.

***Allowable Subject Matter***

11. Claims 5-16 are allowed over the prior art of record.

12. Claims 17-23 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

13. The following is a statement of reasons for the indication of allowable subject matter:

While Swinbanks (U.S. Pat 5,838,802) teaches a method, apparatus, system, medium for actively controlling vibration including measuring ambient vibration, generating a first command signal based upon said vibration constraining a first component of the first command signal, calculating a residual vibration and generating a second command signal based upon said residual vibration, Southward et al (U.S. Pat 5,627,896) teaches a method, system, and medium for actively controlling vibration, measuring ambient vibration, generating a first command

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signal based upon said vibration measured, constraining a first component, comparing said first component of the first command signal to a maximum allowable command signal, reducing the first component to the maximum allowable command signal, determines a residual vibration, and generating a second command signal based upon said residual vibration and Hodgson et al (U.S. Pat 5,526,292) teaches a method, system, and medium for actively controlling vibration, measuring ambient vibration, generating a first command signal based upon said vibration measured, calculating a residual vibration and generating a second command signal based upon said residual vibration. None of these reference taken either alone or in combination with the prior art of record disclose a method for actively controlling vibration, including:

(claim 6) “calculating a residual vibration resulting from the constraint of the first component, wherein the residual vibration is calculated based upon the constraint”,

(claim 10) “performing a calculation based upon T to determine a residual vibration resulting from the constraint of the first component, the control unit generating a second command signal based upon the calculated residual vibration”,

(claim 13) “calculating a residual vibration resulting from the constraint of the first component, wherein the constraint of the first component of the First command signal is an input to the calculation”

(claim 17) “calculating a residual that is expected to result from the constraint”, “wherein the calculation is based upon the constraint”,

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the applicant’s invention defines over the prior art of record.

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*Conclusion*

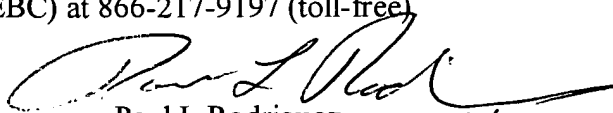
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

MacMartin et al (U.S. Pat 7,003,380) – teaches active control of vibration utilizing a residual calculation and a T matrix.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul L. Rodriguez whose telephone number is (571) 272-3753. The examiner can normally be reached on 6:00 - 4:30 T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Paul L Rodriguez  
Primary Examiner  
Art Unit 2125  
3/1/06

PLR  
3/1/06